

PATENT CLAIMS

1. An ultrasonic welding device (1) for joining together fabric-like or film-like subjects, comprising a continuously drivable roller sonotrode (13) and an anvil arranged opposite the roller sonotrode (13), wherein the distance between the roller sonotrode (13) and the anvil may be changed, and wherein the subjects may be pressed together between the roller sonotrode (13) and the anvil and may be joined together by way of introducing ultrasonic oscillation via the sonotrode (13), wherein the welding power of the roller sonotrode (13) may be closed-loop controlled by way of a control (29).
2. An ultrasound welding device (1) according to claim 1, wherein the amplitude of the activation signal for the sonotrode (13) and/or the pressing pressure or the contact force of the sonotrode (13) onto the subjects are regulating variables for the closed-loop control of the welding power.
3. An ultrasonic welding device (1) according to one of the claims 1 or 2, wherein the desired welding power or the ratio of the desired welding power to the maximal possible welding power may be programmed or stored as required values or command variables.
4. An ultrasonic welding device (1) according to one of the claims 1 to 3, wherein the sonotrode (13) has an effective width which is larger than 11 mm.
5. A method for operating an ultrasonic welding device (1) according to one of the claims 1 to 4, wherein the welding power or its dependence as a function of time or of the path is programmed or stored as a command variable.
6. A method according to claim 5, wherein the welding power is closed-loop controlled.
7. A method according to one of the claims 5 or 6, wherein a double-sided adhesive strip with a hot-melt adhesive is activated by energy transmission from the sonotrode (13).
8. Subjects manufacturable with the method according to one of the claims 5 or 6, wherein these comprise a welding seam or an adhesive seam with a uniform quality.
9. Subjects according to claim 8, wherein the welding seam or adhesive seam has the width of more than 11mm.

10. Subjects according to one of the claims 8 or 9, wherein these have the form of tarpaulin or canopies or pieces of clothing.